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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,402	12/07/2004	Christopher J. Criscuolo	2832 (203-3308)	4034
Covidien	7590	03/02/2010	EXAMINER	
60 Middletown Avenue	DANG, PHONG SON H			
North Haven, CT 06473	ART UNIT			
	PAPER NUMBER			
	3773			
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/517,402	CRISCUOLO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	SON DANG	3773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 21,23,24,27,32-36,40-44,48 and 49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21,23,24,27,32-36,40-44,48 and 49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/28/2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The amendment filed 10/21/2009 has been entered. Claims 1-20, 22, 29-31, 37-39 and 45-47 remain cancelled. Claims 21, 23-28, 32-36 and 40-49 remain pending in the application.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 21, 23-24, 27, 32-36, 40-44 and 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,001,101 to Augagneur et al. (Augagneur) in view of US Patent No. 5,536,127 to Pennig (Pennig).

In Reference to Claims 21, 23-24, 27, 32-36, 40-44 and 48-49:

Augagneur teaches:

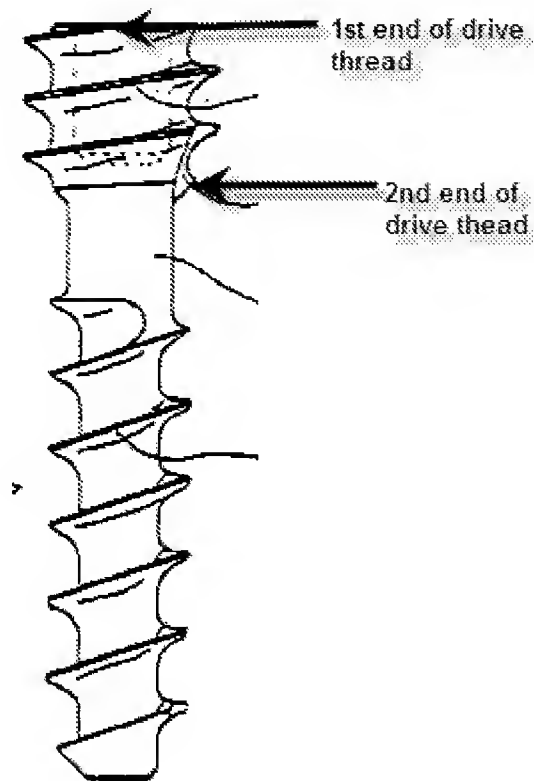
A surgical tack for attaching a material to tissue comprising: a head (2, Fig. 1) having a drive thread (20, Fig. 1) formed on an outer surface thereof; a barrel portion (1, Fig. 1) extending from the head (2, Fig. 1) and having a tissue engaging thread (10, Fig. 1) formed on an outer surface thereof and extending substantially along an entire length of the barrel portion (1, Fig. 1), wherein a distal end of the drive thread (20, Fig. 1) and a proximal end of the tissue engaging thread (10, Fig. 1) define a gap (3, Fig. 1) there between, wherein the proximal end of the tissue engaging thread (10, Fig. 1) is in the same plane as

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the distal end of the drive thread (20, Fig. 1) and the plane is substantially transverse (transverse define broadly is extending or lying across or in a crosswise direction) to a longitudinal axis of the barrel portion (1, Fig. 1); and a through bore (30, Fig. 2) extending through the head (2, Fig. 1) and barrel portion (1, Fig. 1) for receipt of a drive tool. A transition zone between the drive thread (20, Fig. 1) and the tissue engaging thread (10, Fig. 1). A leading edge of the drive thread is tapered (23, Fig. 1). The maximum diameter of the drive thread (2, Fig. 1) is greater than the maximum diameter of the tissue engaging thread (10, Fig. 1). The barrel portion (1, Fig. 1) includes a smooth or rounded leading edge. The head (2, Fig. 1) is configured to facilitate removal of the tack. The drive thread (20, Fig. 1) and the tissue engaging thread (10, Fig. 1) have substantially the same pitch. A surgical tack comprising: a head (2, Fig. 1) having a first thread (20, Fig. 1) formed thereon; a barrel portion (1, Fig. 1) extending from the head, the barrel portion having a second thread (10, Fig. 1) extending substantially along an entire length thereof, wherein a leading edge of the first thread (20, Fig. 1) and a trailing edge of the second thread (10, Fig. 1) are spaced apart thereby defining a discontinuity (3, Fig. 1) there between, the leading edge of the first thread (20, Fig. 1) and the trailing edge of the second thread (10, Fig. 1) are both in a common plane, the common plane extends through a longitudinal axis of the barrel portion (1, Fig. 1); and a through bore (30, Fig. 2) extending through the tack for receipt of a drive tool. The drive thread (20, Fig. 1) forms an incomplete convolution about the head (2, Fig. 1). A gap (10, Fig. 1) is formed

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between a first end of the drive thread and a second end of the drive thread. A first end of the drive thread is laterally spaced from a second end of the drive thread.



Augagneur fails to teach:

Wherein the drive thread is configured to prevent threaded engagement of the head into tissue.

Pennig teaches:

Wherein the drive thread is configured to prevent threaded engagement of the head into tissue.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the drive thread of Pennig into Augagneur in order to prevent the head of the screw from entering the tissues which the tissue threads engaged, and allow the head to engage an internally-threaded tool for installing the screw in or removing the screw from tissue.

4. Claims 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Augagneur in view of Pennig and further in view of US Patent No. 5,169,400 to Muhling (Muhling).

Augagneur teaches:

The surgical tack as recited in claim 21 (see rejection of claim 21 above).

Augagneur or Augagneur in view of Pennig fails to teach:

The through bore has a D-shaped cross-section.

Muhling teaches:

The through bore has a D-shaped cross-section (Figs. 2-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the D-shaped through bore in Augagneur in view of Pennig in order to enhance the torque to be applied to the screw.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Augagneur in view of Pennig and further in view of Huebner (U.S. Patent No. 6,030,162). Augagneur or Augagneur in view of Pennig does not disclose a chamfered leading edge of the drive thread. Huebner does not appear to expressly disclose a chamfered drive thread on the head portion 26. However, Huebner does disclose a

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chamfer 80 on the leading section 24 (See Huebner figure 2; Huebner, col. 4, 63-65). Huebner also discloses, "[the] termination zone 80 [or chamfered portion] could be used on any of the screws described herein." Huebner, col. 5, lines 6-7. This suggests that the chamfered portion can be used on the trailing head portion 26. It would be obvious to apply a chamfered portion, as taught by Huebner, on the head portion of Augagneur in view of Pennig, so as to allow for smooth rotation through and insertion into shaft 146.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 21, 23-24, 27, 32-36, 40-44 and 48-49 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SON DANG whose telephone number is (571)270-5809. The examiner can normally be reached on Monday-Friday 7:30 AM - 5:00 PM EDT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on 571-272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SD

/Julian W. Woo/  
Primary Examiner, Art Unit 3773